



SEQUENCE LISTING

<110> Rottier, Petrus J.M.
de Haan, Cornelis A.M.
Haijema, Bert J.
Bosch, Berend J.

<120> Corona-virus-like particles comprising functionally deleted genomes

<130> P56179US20

<140> US 10/750,411
<141> 2003-12-30

<150> PCT/NL02/00318
<151> 2002-05-17

<150> EP 01201861.0
<151> 2001-05-17

<160> 80

<170> PatentIn Ver. 3.1

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new junction created in recombinant MHV-virus

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gcagctcgaa agaaatg 77

<210> 35
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<220>
<223> Description of Artificial Sequence: sequence of
new junction created in recombinant MHV-virus

<400> 35
gtcaaataaa gcttgcatga ggcataatct aaacatg 37

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<400> 36
acgtcctata gattagattt gaaatcgatc

<210> 37
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      sequence of pBRDI1 and pBRDI2 around the 5' end of
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<400> 37
ctcgagtcga aattaatacg actcaactata gggttttaa agtaaagtga gtgta 55

<210> 38
<211> 36
<212> DNA
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<400> 38
gttattgaag gtgagctctg gactgtgttt tgtaca 36

<210> 39
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<212> PRT
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<223> Description of Artificial Sequence: protein
      sequence derived from pBRDI sequence at the
      pol1A/1B junction

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   1           5           10

<210> 40
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sequence at the 3' end of the cDNA construct

<400> 40
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<210> 41
<211> 54
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sequence at the FIPV pol1B-MHV S transition in
pTMFS1 and pBRDI2

<400> 41
gttaatgtgc catgctgttc gtgtttattc tattttgcc ctcttgttta gggt 54

<210> 42
<211> 13
<212> PRT
<213> Artificial Sequence

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sequence derived from nucleotide sequence at the
FIPV pol1B-MHV S transition in pTMFS1 and pBRDI2

<400> 42
Pro Cys Cys Ser Cys Leu Phe Tyr Phe Cys Pro Leu Val
1 5 10

<210> 43
<211> 11
<212> PRT
<213> Artificial Sequence

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sequence derived from nucleotide sequence at the
FIPV pol1B-MHV S transition in pTMFS1 and pBRDI2

<400> 43
Met Leu Phe Val Phe Ile Leu Phe Leu Pro Ser
1 5 10

<210> 44
<211> 25
<212> PRT
<213> mouse hepatitis virus

<400> 44

Ser Ser Tyr Gly Met Ser Glu Ser Ala Asp Ala Asn Gly Ser Ala Glu
1 5 10 15

Asn Asn Ser Arg Leu Thr Glu Lys Asn
20 25

<210> 45

<211> 25

<212> PRT

<213> Human coronavirus

<400> 45

Tyr Asn Tyr Gly Met Ser Gln Asn Tyr Ala Asp Ala Asn Val Ala Ala
1 5 10 15

Glu Asn Gln Ser Arg Leu Ser Glu Asn
20 25

<210> 46

<211> 42

<212> PRT

<213> Human coronavirus

<400> 46

Ser Ala Tyr Gln Thr Gln Glu Ala Lys Thr Asn Val Thr Gly Val Asn
1 5 10 15

Asp Ala Ile Thr Gln Thr Ser Gln Ala Leu Gln Val Ala Asn Gln Asn
20 25 30

His Thr Ser Arg Gln Ala Asp Thr Gln Gln
35 40

<210> 47

<211> 43

<212> PRT

<213> Feline infectious peritonitis virus

<400> 47

Ala Ala Tyr Gln Thr Asn Lys Gln Asn Asn Thr Gln Gly Lys Val Asn
1 5 10 15

Asp Ala Ile His Gln Thr Ser Gln Gly Leu Ala Val Ala Lys Ala Thr
20 25 30

Gln Ser His Thr Val Gln Gln Ser Asn Glu Ser
35 40

<210> 48
<211> 36
<212> PRT
<213> Infectious bronchitis virus

<400> 48

Ala Thr Gln His Gln Ser Leu Lys Glu Lys Ala Lys His Arg Ser Leu
1 5 10 15

Gln Gln Ser Lys Ser Ala Ile Thr Glu Thr Ala Ser Asn Lys Val Gln
20 25 30

Gln Phe Gln Asn
35

<210> 49
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<212> PRT
<213> Artificial Sequence

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<400> 49
Gly Pro Ile Glu Gly Arg Gln Tyr Arg Ile Asn Gly Leu Gly Val Thr
1 5 10 15

Met Asn Val Leu Ser Glu Asn Gln Lys Met Ile Ala Ser Ala Phe Asn
20 25 30

Asn Ala Leu Gly Ala Ile Gln Asp Gly Phe Asp Ala Thr Asn Ser Ala
35 40 45

Leu Gly Lys Ile Gln Ser Val Val Asn Ala Asn Ala Glu Ala Leu Asn
50 55 60

Asn Leu Leu Asn Gln Leu Ser Asn Arg Phe Gly Ala Ile Ser Ala Ser
65 70 75 80

Leu Gln Glu Ile Leu Thr Arg Leu Glu Ala Val Glu Ala Lys Ala Gln
85 90 95

Ile Asp Arg Leu Ile Asn
100

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<223> Description of Artificial Sequence: peptide HR1a

<400> 50

20 25 30

Gln Ser Val Val Asn Ala Asn Ala Glu Ala Leu Asn Asn Leu Leu Asn
35 40 45

Gln Leu Ser Asn Arg Phe Gly Ala Ile Ser Ala Ser Leu Gln Glu Ile
50 55 60

Leu Thr Arg Leu Glu Ala Val Glu Ala Lys Ala Gln Ile Asp Arg Leu
65 70 75 80

Ile Asn

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<211> 49

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<223> Description of Artificial Sequence: peptide HR1b

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Gly Pro Asn Gln Lys Met Ile Ala Ser Ala Phe Asn Asn Ala Leu Gly
1 5 10 15

Ala Ile Gln Asp Gly Phe Asp Ala Thr Asn Ser Ala Leu Gly Lys Ile
20 25 30

Gln Ser Val Val Asn Ala Asn Ala Glu Ala Leu Asn Asn Leu Leu Asn Gln
35 40 45

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<212> PRT

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<223> Description of Artificial Sequence: peptide HR1c

<400> 52

Gly Pro Ile Glu Gly Arg Asn Ala Asn Ala Glu Ala Leu Asn Asn Leu
1 5 10 15

Leu Asn Gln Leu Ser Asn Arg Phe Gly Ala Ile Ser Ala Ser Leu Gln
20 25 30

Glu Ile Leu Thr Arg Leu Glu Ala Val Glu Ala Lys Ala Gln Ile Asp
35 40 45

Arg Leu Ile Asn
50

<210> 53

<211> 17

<210> 53
<211> 17
<212> PRT
<213> mouse hepatitis virus

<400> 53

Phe Glu Lys Leu Tyr Asn Asp Ala Lys Lys Glu Tyr Glu Gly Thr Tyr
1 5 10 15

Met

<210> 54
<211> 17
<212> PRT
<213> Human coronavirus

<400> 54

Phe Glu Lys Leu Tyr Asn Asp Ala Lys Lys Glu Tyr Glu Gly Thr Tyr
1 5 10 15

Met

<210> 55
<211> 27
<212> PRT
<213> Human coronavirus

<400> 55

Val Gln Gln Ser Ser Thr Asn Lys Ser Ala Glu Leu Asn Tyr Thr Val
1 5 10 15

Gln Lys Leu Gln Thr Asp Asn Ser Trp Asn Arg
20 25

<210> 56
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<213> Feline infectious peritonitis virus

<400> 56

Phe Ile Ala Tyr Gly Asp Asp Phe Arg Ser Glu Lys Leu His Asn Thr
1 5 10 15

Thr Val Glu Leu Ala Ile Asp Asn Asn Glu Trp Asn Arg
20 25

<210> 57

<211> 19
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<213> Infectious bronchitis virus

<400> 57

Phe Asp Lys Phe Asn Thr Pro Asp Ser Asp Gly Gln Gly Asp Glu Lys
1 5 10 15

Ser Ile Lys

<210> 58
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1 5 10 15

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20 25 30

Ile Lys Lys Leu Asn Glu Ser Tyr Ile Asn Leu Lys Glu
35 40 45

<210> 59
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junction generated in recombinant MHV-virus

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<210> 60
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junction generated in recombinant MHV-virus

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<210> 61
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<210> 63
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<400> 63
gtcaaataaa gcttgcatga ggcataatct aaacatg 37

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gaggttacga attaaactga gttataaggc aac 33

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<210> 77
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<210> 78
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plasmid pBRDII1	
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